

AMENDMENTS TO THE CLAIMS

Please amend Claims 1-4 and 21-38 as follows. All pending claims have been reproduced below.

1. (Currently Amended) An image processing apparatus comprising:
display means for displaying a moving image on the basis of input image data;
designation means for designating a partial region defined by user-selected points in a display screen of said display means; and
encoding means for encoding the image data,
wherein said display means displays a still image of the moving image during designation by said designation means, and
said encoding means encodes the image data with an image included in the region designated by said designation means of the moving image displayed by said display means being decodable to have higher image quality than an image of a non-designated region.

2. (Currently Amended) An image processing apparatus comprising:
display means for displaying a moving image on the basis of input image data;
designation means for designating an object defined by user-selected points included in the moving image displayed by said display means; and

encoding means for encoding the image data,
wherein said display means displays a still image of the moving image
during designation by said designation means, and
said encoding means encodes the image data with an image indicating the
object designated by said designation means of the moving image displayed by said display
means being decodable to have higher image quality than an image of a non-designated
portion.

3. (Currently Amended) An image processing apparatus comprising:
display means for displaying a moving image on the basis of input image
data;

designation means for designating a partial region defined by user-selected
points in a display screen of said display means; and

encoding means for encoding the image data,
wherein said display means displays a still image of the moving image
during designation by said designation means,

said encoding means comprises:
means for generating transform coefficients by computing discrete wavelet
transforms of the image data;

means for generating quantization indices by quantizing the transform
coefficients; and

means for generating encoded data by decomposing the quantization indices into bit planes, and executing arithmetic coding for the respective bit planes, and

said encoding means shifts up the quantization indices corresponding to an image included in the region designated by said designation means of the moving image displayed by said display means by a predetermined number of bits.

4. (Currently Amended) An image processing apparatus comprising:
display means for displaying a moving image on the basis of input image data;

designation means for designating an object defined by user-selected points included in the moving image displayed by said display means; and

encoding means for encoding the image data,

wherein said display means displays a still image of the moving image during designation by said designation means,

said encoding means comprises:

means for generating transform coefficients by computing discrete wavelet transforms of the image data;

means for generating quantization indices by quantizing the transform coefficients; and

means for generating encoded data by decomposing the quantization indices into bit planes, and executing arithmetic coding for the respective bit planes, and

said encoding means shifts up the quantization indices corresponding to an image indicating the object designated by said designation means of the moving image displayed by said display means by a predetermined number of bits.

5. (Original) The apparatus according to claim 1, wherein said display means simultaneously displays the moving image and the still image of the moving image during designation by said designation means.

6. (Original) The apparatus according to claim 2, wherein said display means simultaneously displays the moving image and the still image of the moving image during designation by said designation means.

7. (Original) The apparatus according to claim 3, wherein said display means simultaneously displays the moving image and the still image of the moving image during designation by said designation means.

8. (Original) The apparatus according to claim 4, wherein said display means simultaneously displays the moving image and the still image of the moving image during designation by said designation means.

9. (Original) The apparatus according to claim 1, further comprising means for saving the encoded data generated by said encoding means.

10. (Original) The apparatus according to claim 2, further comprising means for saving the encoded data generated by said encoding means.

11. (Original) The apparatus according to claim 3, further comprising means for saving the encoded data generated by said encoding means.

12. (Original) The apparatus according to claim 4, further comprising means for saving the encoded data generated by said encoding means.

13. (Original) The apparatus according to claim 1, further comprising image sensing means for generating the image data by sensing an image.

14. (Original) The apparatus according to claim 2, further comprising image sensing means for generating the image data by sensing an image.

15. (Original) The apparatus according to claim 3, further comprising image sensing means for generating the image data by sensing an image.

16. (Original) The apparatus according to claim 4, further comprising image sensing means for generating the image data by sensing an image.

17. (Original) The apparatus according to claim 1, wherein the image data is image data recorded in a recording medium.

18. (Original) The apparatus according to claim 2, wherein the image data is image data recorded in a recording medium.

19. (Original) The apparatus according to claim 3, wherein the image data is image data recorded in a recording medium.

20. (Original) The apparatus according to claim 4, wherein the image data is image data recorded in a recording medium.

21. (Currently Amended) A digital camera comprising:
image sensing means for generating image data by sensing an image;
display means for displaying a moving image on the basis of the image data;
designation means for designating a partial region defined by user-selected points in a display screen of said display means;
encoding means for encoding the image data; and
means for saving the encoded data,
wherein said display means displays a still image of the moving image during designation by said designation means, and

said encoding means encodes the image data with an image included in the region designated by said designation means of the moving image displayed by said display means being decodable to have higher image quality than an image of a non-designated region.

22. (Currently Amended) A digital camera comprising:
image sensing means for generating image data by sensing an image;
display means for displaying a moving image on the basis of the image data;
designation means for designating an object defined by user-selected points
included in the moving image displayed by said display means;
encoding means for encoding the image data; and
means for saving the encoded data,
wherein said display means displays a still image of the moving image
during designation by said designation means, and
said encoding means encodes the image data with an image indicating the
object designated by said designation means of the moving image displayed by said display
means being decodable to have higher image quality than an image of a non-designated
portion.

23. (Currently Amended) A digital camera comprising:
image sensing means for generating image data by sensing an image;
display means for displaying a moving image on the basis of the image data;

designation means for designating a partial region defined by user-selected points in a display screen of said display means;

encoding means for encoding the image data; and

means for saving the encoded data,

wherein said display means displays a still image of the moving image during designation by said designation means,

said encoding means comprises:

means for generating transform coefficients by computing discrete wavelet transforms of the image data;

means for generating quantization indices by quantizing the transform coefficients; and

means for generating encoded data by decomposing the quantization indices into bit planes, and executing arithmetic coding for the respective bit planes, and

said encoding means shifts up the quantization indices corresponding to an image included in the region designated by said designation means of the moving image displayed by said display means by a predetermined number of bits.

24. (Currently Amended) A digital camera comprising:

image sensing means for generating image data by sensing an image;

display means for displaying a moving image on the basis of the image data;

designation means for designating an object defined by user-selected points included in the moving image displayed by said display means;

encoding means for encoding the image data; and
means for saving the encoded data,
wherein said display means displays a still image of the moving image
during designation by said designation means,
said encoding means comprises:
means for generating transform coefficients by computing discrete wavelet
transforms of the image data;
means for generating quantization indices by quantizing the transform
coefficients; and
means for generating encoded data by decomposing the quantization indices
into bit planes, and executing arithmetic coding for the respective bit planes, and
said encoding means shifts up the quantization indices corresponding to an
image indicating the object designated by said designation means of the moving image
displayed by said display means by a predetermined number of bits.

25. (Currently Amended) An image processing method comprising:
~~the~~ a display step of displaying a moving image on the basis of input image
data;
~~the~~ a designation step of designating a partial region defined by user-
selected points in a display screen in ~~the~~ said display step; and
~~the~~ an encoding step of encoding the image data,

wherein ~~the~~ said display step includes ~~the~~ a step of displaying a still image of the moving image during designation in ~~the~~ said designation step, and

~~the~~ said encoding step includes ~~the~~ a step of encoding the image data with an image included in the region designated in ~~the~~ said designation step of the moving image displayed in ~~the~~ said display step being decodable to have higher image quality than an image of a non-designated region.

26. (Currently Amended) An image processing method comprising:

~~the~~ a display step of displaying a moving image on the basis of input image data;

~~the~~ a designation step of designating an object defined by user-selected points included in the moving image displayed in ~~the~~ said display step; and

~~the~~ an encoding step of encoding the image data,

wherein ~~the~~ said display step includes ~~the~~ a step of displaying a still image of the moving image during designation in ~~the~~ said designation step, and

~~the~~ said encoding step includes ~~the~~ a step of encoding the image data with an image indicating the object designated in ~~the~~ said designation step of the moving image displayed by ~~the~~ in said display step being decodable to have higher image quality than an image of a non-designated portion.

27. (Currently Amended) An image processing method comprising:

the a display step of displaying a moving image on the basis of input image data;

the a designation step of designating a partial region defined by user-selected points in a display screen in ~~the~~ said display step; and

the an encoding step of encoding the image data,

wherein ~~the~~ said display step includes ~~the~~ a step of displaying a still image of the moving image during designation in ~~the~~ said designation step,

the said encoding step ~~comprises~~ comprising:

the a step of generating transform coefficients by computing discrete wavelet transforms of the image data;

~~the~~ a step of generating quantization indices by quantizing the transform coefficients; and

the a step of generating encoded data by decomposing the quantization indices into bit planes, and executing arithmetic coding for the respective bit planes, and

the said encoding step includes ~~the~~ a step of shifting up the quantization indices corresponding to an image included in the region designated in ~~the~~ said designation step of the moving image displayed by ~~the~~ in said display step by a predetermined number of bits.

28. (Currently Amended) An image processing method comprising:

the a display step of displaying a moving image on the basis of input image data;

the a designation step of designating an object defined by user-selected points included in the moving image displayed in the said display step; and

the a encoding step of encoding the image data,

wherein the said display step includes ~~the~~ a step of displaying a still image of the moving image during designation in the said designation step,

the said encoding step ~~comprises~~ comprising:

the a step of generating transform coefficients by computing discrete wavelet transforms of the image data;

the a step of generating quantization indices by quantizing the transform coefficients; and

the a step of generating encoded data by decomposing the quantization indices into bit planes, and executing arithmetic coding for the respective bit planes, and

the said encoding step includes ~~the~~ a step of shifting up the quantization indices corresponding to an image indicating the object designated in the said designation step of the moving image displayed ~~by the~~ in said display step by a predetermined number of bits.

29. (Currently Amended) A program for making a computer function

as:

display means for displaying a moving image on the basis of input image

data;

designation means for designating a partial region defined by user-selected points in a display screen of said display means; and

encoding means for encoding the image data,

wherein said display means displays a still image of the moving image during designation by said designation means, and

said encoding means encodes the image data with an image included in the region designated by said designation means of the moving image displayed by said display means being decodable to have higher image quality than an image of a non-designated region.

30. (Currently Amended) A program for making a computer function

as:

display means for displaying a moving image on the basis of input image

data;

designation means for designating an object defined by user-selected points included in the moving image displayed by said display means; and

encoding means for encoding the image data,

wherein said display means displays a still image of the moving image during designation by said designation means, and

said encoding means encodes the image data with an image indicating the object designated by said designation means of the moving image displayed by said display means being decodable to have higher image quality than an image of a non-designated portion.

31. (Currently Amended) A program for making a computer function as:

display means for displaying a moving image on the basis of input image data;

designation means for designating a partial region defined by user-selected points in a display screen of said display means; and

encoding means for encoding the image data,

wherein said display means displays a still image of the moving image during designation by said designation means,

said encoding means comprises:

means for generating transform coefficients by computing discrete wavelet transforms of the image data;

means for generating quantization indices by quantizing the transform coefficients; and

means for generating encoded data by decomposing the quantization indices into bit planes, and executing arithmetic coding for the respective bit planes, and

said encoding means shifts up the quantization indices corresponding to an image included in the region designated by said designation means of the moving image displayed by said display means by a predetermined number of bits.

32. (Currently Amended) A program for making a computer function as:

display means for displaying a moving image on the basis of input image data;

designation means for designating an object defined by user-selected points included in the moving image displayed by said display means; and

encoding means for encoding the image data,

wherein said display means displays a still image of the moving image during designation by said designation means,

said encoding means comprises:

means for generating transform coefficients by computing discrete wavelet transforms of the image data;

means for generating quantization indices by quantizing the transform coefficients; and

means for generating encoded data by decomposing the quantization indices into bit planes, and executing arithmetic coding for the respective bit planes, and

said encoding means shifts up the quantization indices corresponding to an image indicating the object designated by said designation means of the moving image displayed by said display means by a predetermined number of bits.

33. (Currently Amended) An image processing apparatus comprising:
display means for displaying a moving image on the basis of input image data;

designation means for designating a partial region defined by user-selected points in a display screen of said display means;

encoding means for generating encoded data by encoding the image data;

storage means for storing the encoded data; and

decoding means for decoding the encoded data stored in said storage means,

wherein said display means displays a still image of the moving image during designation by said designation means,

said encoding means encodes the image data with an image included in the region designated by said designation means of the moving image displayed by said display means being decodable to have higher image quality than an image of a non-designated region,

said decoding means decodes encoded data at least from the beginning to the end of designation of the region by said designation means of the encoded data stored in said storage means, and

said encoding means re-encodes the decoded image data with an image corresponding to the region of an image that corresponds to the image data decoded by said decoding means being decodable to have higher image quality than an image of the non-designated region.

34. (Currently Amended) An image processing apparatus comprising:
display means for displaying a moving image on the basis of input image data;

designation means for designating an object defined by user-selected points included in the moving image displayed by said display means;

encoding means for generating encoded data by encoding the image data;

storage means for storing the encoded data; and

decoding means for decoding the encoded data stored in said storage means,

wherein said display means displays a still image of the moving image during designation by said designation means,

said encoding means encodes the image data with an image indicating the object designated by said designation means of the moving image displayed by said display means being decodable to have higher image quality than an image of a non-designated portion,

said decoding means decodes encoded data at least from the beginning to the end of designation of the object by said designation means of the encoded data stored in said storage means, and

said encoding means re-encodes the decoded image data with an image corresponding to the object of an image that corresponds to the image data decoded by said decoding means being decodable to have higher image quality than an image of the non-designated region.

35. (Currently Amended) An image processing method comprising:
the a display step of displaying a moving image on the basis of input image data;

the a designation step of designating a partial region defined by user-selected points in a display screen in the said display step;

the an encoding step of generating encoded data by encoding the image data;

the a storage step of storing the encoded data; and

the a decoding step of decoding the encoded data stored in the said storage step,

wherein the said display step includes the a step of displaying a still image of the moving image during designation in the said designation step,

~~the~~ said encoding step includes ~~the~~ a step of encoding the image data with an image included in the region designated in ~~the~~ said designation step of the moving image displayed in ~~the~~ said display step being decodable to have higher image quality than an image of a non-designated region,

~~the~~ said decoding step includes ~~the~~ a step of decoding encoded data at least from the beginning to the end of designation of the region in ~~the~~ said designation step of the encoded data stored in ~~the~~ said storage step, and

~~the~~ said encoding step includes the step of re-encoding the decoded image data with an image corresponding to the region of an image that corresponds to the image data decoded in ~~the~~ said decoding step being decodable to have higher image quality than an image of the non-designated region.

36. (Currently Amended) An image processing method comprising:

~~the~~ a display step of displaying a moving image on the basis of input image data;

~~the~~ a designation step of designating an object defined by user-selected points included in the moving image displayed in ~~the~~ said display step;

~~the~~ an encoding step of generating encoded data by encoding the image data;

~~the~~ a storage step of storing the encoded data; and

~~the~~ a decoding step of decoding the encoded data, stored in ~~the~~ said storage step,

wherein ~~the~~ said display step includes ~~the~~ a step of displaying a still image of the moving image during designation in ~~the~~ said designation step,

~~the~~ said encoding step includes ~~the~~ a step of encoding the image data with an image indicating the object designated in ~~the~~ said designation step of the moving image displayed in ~~the~~ said display step being decodable to have higher image quality than an image of a non-designated portion,

~~the~~ said decoding step includes ~~the~~ a step of decoding encoded data at least from the beginning to the end of designation of the object in ~~the~~ said designation step of the encoded data stored in ~~the~~ said storage step, and

~~the~~ said encoding step includes ~~the~~ a step of re-encoding the decoded image data with an image corresponding to the object of an image that corresponds to the image data decoded in ~~the~~ said decoding step being decodable to have higher image quality than an image of the non-designated region.

37. (Currently Amended) A program for making a computer function as:

display means for displaying a moving image on the basis of input image data;

designation means for designating a partial region defined by user-selected points in a display screen of said display means;

encoding means for generating encoded data by encoding the image data;
and

storage means for storing the encoded data; and
decoding means for decoding the encoded data stored in said storage means,
wherein said display means displays a still image of the moving image
during designation by said designation means,

said encoding means encodes the image data with an image included in the
region designated by said designation means of the moving image displayed by said display
means being decodable to have higher image quality than an image of a non-designated
region,

said decoding means decodes encoded data at least from the beginning to
the end of designation of the region by said designation means of the encoded data stored
in said storage means, and

said encoding means re-encodes the decoded image data with an image
corresponding to the region of an image that corresponds to the image data decoded by said
decoding means being decodable to have higher image quality than an image of the
non-designated region.

38. (Currently Amended) A program for making a computer function
as:

display means for displaying a moving image on the basis of input image
data;

designation means for designating an object defined by user-selected points
included in the moving image displayed by said display means;

encoding means for generating encoded data by encoding the image data;
storage means for storing the encoded data; and
decoding means for decoding the encoded data stored in said storage means,
wherein said display means displays a still image of the moving image
during designation by said designation means,

said encoding means encodes the image data with an image indicating the
object designated by said designation means of the moving image displayed by said display
means being decodable to have higher image quality than an image of a non-designated
portion,

said decoding means decodes encoded data at least from the beginning to
the end of designation of the object by said designation means of the encoded data stored in
said storage means, and

said encoding means re-encodes the decoded image data with an image
corresponding to the object of an image that corresponds to the image data decoded by said
decoding means being decodable to have higher image quality than an image of the
non-designated region.